## California Environmental Protection Agency D Air Resources Board

YANMAR CO., LTD.

EXECUTIVE ORDER U-R-028-0703 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2015	FYDXN0.57P2N	0.57	Diesel	3,000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Indirect Diesel Injection			Marine Engine			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION		EXHAUST (g/kW-hr)				OPACITY (%)			
POWER	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
8 ≤ kW < 19	Tier 2	STD	N/A	N/A	7.5	6.6	0.80	N/A	N/A	N/A
		CERT			5.6	0.9	0.16			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That certification to the standards in 13 CCR 2423(b)(1)(B) -Table 1b listed above has been permitted pursuant to Endnote 1 of the same table.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

\_ day of December 2014.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

## **Engine Model Summary Template**

ATTACHMENT

U-R-028-6703 12/1/14

	4.Fuel Rate:	5.Fuel Rate:		7.Fuel Rate:			
	BHP@RPM mm/stroke @ peak HP	(lbs/hr) @ peak HP	6.Torque @ RPM	mm/stroke@peak	8.Fuel Rate:	9.Emission Control	
Engine Family 1. Engine Code 2. Engine Model (SA	AE Gross) (for diesel only)	(for diesels only)	(SEA Gross)	torque	(lbs/hr)@peak torque	Device Per SAE J1930	
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FYDXN0.57P2N N/A 2YM15 13	3.4/3600 17.4	6.9	N/A	N/A	N/A	EM. IFI	